



# AGENDA ITEM 4

## STAFF REPORT

TYPE MEETING:	Regular Board Meeting	MEETING DATE:	April 4, 2018
SUBMITTED BY:	Rita Bell, Finance Manager	W.O./G.F. NO:	DIV. NO. All
APPROVED BY:	<input checked="" type="checkbox"/> Joseph R. Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Adopt Resolution No. 4344 Allowing for Reimbursement of Certain Expenditures from the Proceeds of the Sewer Debt Obligations of the District, Anticipated to be Issued During 2018		

### GENERAL MANAGER'S RECOMMENDATION:

That the Board adopt Resolution No. 4344 allowing for the reimbursement of certain expenditures from the proceeds of the sewer debt obligations (the "Obligations") of the District, anticipated to be issued during 2018.

### COMMITTEE ACTION: \_\_\_\_\_

Please see Attachment A.

### PURPOSE:

To present for the Board's consideration the adoption of Resolution No. 4344 declaring the District's intent to reimburse certain expenditures from the proceeds of the Obligations.

### ANALYSIS:

The District anticipates the issuance of the Obligations during 2018 to finance an amount not to exceed \$9 million with issuance costs of approximately \$150,000. The District anticipates a debt issuance of approximately \$8.5 million in 2018 to pay for sewer capital improvement projects over the next three fiscal years. The Resolution declares the intent of the District to reimburse itself from the proceeds of the Obligations for any qualifying expenditures incurred prior to the issuance of the Obligations. It should be noted that the U.S. Tax Code allows the District to reimburse itself for any such expenditures incurred within the 60 days prior to the adoption of the Resolution.

Between April 5, 2018 and the date of issuance of the Obligations, the District will spend approximately \$9 million on sewer capital improvements that would qualify for payment from the proceeds of the Obligations. The staff anticipates applying funds from its General Fund, from its capital reserves, and other legally available sources, to pay for expenditures that become due prior to the issuance of the Obligations. The Resolution will allow the District to replenish its General Fund and other capital reserves.

This reimbursement Resolution also assists the District in meeting the arbitrage spend-down requirements.

Treasury and Internal Revenue Code Regulations require adoption of the Resolution as an "official action", which then qualifies the District to reimburse itself upon the issuance of tax exempt debt. The adoption of the attached Resolution, however, does not irrevocably bind the District to issue the Obligations. It merely spells out the District's current intent to do so at some future date and preserves the District's right to reimburse itself for qualified expenditures.

**FISCAL IMPACT:**  Joe Beachem, Chief Financial Officer

The potential reimbursement of \$9 million in CIP expenditures will assist the District in maintaining its operating and capital reserve levels in accordance with the District's Reserve Policy.

**STRATEGIC GOAL:**

The District ensures its continued financial health through long-term financial planning and debt planning.

**LEGAL IMPACT:**

None.

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**General Manager**

Attachments:

- A) Committee Action Form
- B) Resolution No. 4344



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b>	Adopt Resolution No. 4344 Allowing for Reimbursement of Certain Expenditures from the Proceeds of the Sewer Debt Obligations of the District, Anticipated to be Issued During 2018
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### **COMMITTEE ACTION:**

The Finance, Administration and Communications Committee supported staff's recommendation that the Board adopt Resolution No. 4344 allowing for the reimbursement of certain expenditures from the proceeds of the sewer debt obligations (the "Obligations") of the District, anticipated to be issued during 2018.

### **NOTE:**

The "Committee Action" is written in anticipation of the Committee moving the item forward for board approval. This report will be sent to the Board as a committee approved item, or modified to reflect any discussion or changes as directed from the committee prior to presentation to the full board.

## RESOLUTION NO. 4344

RESOLUTION OF THE BOARD OF DIRECTORS OF THE OTAY  
WATER DISTRICT DECLARING ITS INTENTION TO  
REIMBURSE EXPENDITURES FROM THE PROCEEDS OF  
CERTAIN DEBT OBLIGATIONS TO BE ISSUED

WHEREAS, the Otay Water District (the "District") desires to finance the construction and acquisition of the public facilities that constitute the Project (as defined below); and

WHEREAS, the District reasonably expects, as of the date hereof, to finance expenditures relating to the Project by authorizing the sale and delivery of one or more series of Obligations (as defined below); and

WHEREAS, the United States Income Tax Regulations Section 1.150-2 provides generally that proceeds of tax-exempt debt used to reimburse expenditures paid prior to the date of issuance of such debt are treated as expended only if certain procedures are followed, one of which is a requirement that (with certain exceptions), prior to the payment of any such expenditures, the issuer declares an intention to reimburse such expenditure; and

WHEREAS, the District reasonably expects to expend some funds in connection with the Project prior to the issuance of debt for such purpose; and

WHEREAS, the District reasonably expects, as of the date hereof, to reimburse such expenditures by allocating a portion of the proceeds of the Obligations to the reimbursement of such expenditures; and

WHEREAS, it is in the public interest and for the public benefit that the District declares its official intent to reimburse the expenditures referenced herein.

NOW, THEREFORE, BE IT RESOLVED by the BOARD OF DIRECTORS of the OTAY WATER DISTRICT as follows:

Section 1. The District intends to issue one or more series of obligations (the "Obligations") the proceeds of which will be used for the acquisition, construction, repair, improvement, delivery, design, installation, furnishing and equipping of certain capital facilities of the District's sewer system (the "Project").

Section 2. The District hereby declares that it reasonably expects to (i) pay certain costs of the Project prior to the date of issuance of the Obligations; and (ii) use a portion of the proceeds of the Obligations for reimbursement of expenditures for the Project that are paid prior to the issuance of the Obligations.

Section 3. The aggregate maximum principal amount of the Obligations to be issued is expected not to exceed \$9,000,000.

Section 4. In addition to reimbursing the District, the proceeds from the Obligations are anticipated to be used for costs and expenses related to the Project, funding a reserve fund and paying certain costs of issuance related thereto.

Section 5. The reimbursement allocation to be made with respect to an expenditure will occur not later than eighteen (18) months after the later of (i) the date on which the expenditure is paid, or (ii) the date on which the Project is placed in service, but in no event more than three years after the expenditure is paid.

Section 6. This Resolution expresses the District's expectations as of this date with respect to the financing of the construction and acquisition of the Project. Future events or extraordinary circumstances beyond the control of the District may result in the Project being financed in a manner other than as described in this Resolution, and nothing contained herein constitutes an irrevocable commitment by the District to issue the Obligations.

Section 7. All actions heretofore taken by the officers, or their respective designees, employees and agents of the Board of Directors of the District in connection with the financing of the Project are hereby ratified and confirmed.

Section 8. This Resolution shall take effect immediately upon its adoption.

Section 9. The District Secretary shall certify to the adoption of this Resolution.

APPROVED AND ADOPTED this 4<sup>th</sup> day of April, 2018.

Ayes:

Noes:

Abstain:

Absent:

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President

ATTEST:

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District Secretary

APPROVED AS TO FORM:

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District Counsel

I HEREBY CERTIFY that the foregoing Resolution No. 4344 was duly adopted by the BOARD OF DIRECTORS of the OTAY WATER DISTRICT at a regular meeting thereof held on the 4<sup>th</sup> day of April, 2018 by the following vote:

Ayes:

Noes:

Abstain:

Absent:

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District Secretary

# AGENDA ITEM 5



## STAFF REPORT

TYPE MEETING: Regular Board

MEETING DATE: April 4, 2018

PROJECT:

DIV. NO. All

SUBMITTED BY: Rita Bell, Finance Manager

APPROVED BY:  Joe Beachem, Chief Financial Officer

Mark Watton, General Manager

SUBJECT: Cost Benefit of the Treatment Plant Shutdown vs. Status Quo

### **GENERAL MANAGER'S RECOMMENDATION:**

This is an informational item only.

### **COMMITTEE ACTION:**

See Attachment A.

### **PURPOSE:**

To present the Board an analysis of the cost benefit of keeping the Ralph W. Chapman Water Recycling Facility (RWCWRF) treatment plant open, compared to closing the plant and sending all sewer flows to San Diego Metropolitan Wastewater (Metro).

### **BACKGROUND:**

The Board asked to see the analysis that shows that it is most cost effective to have the RWCWRF running at full capacity as opposed to shutting down the treatment plant and sending flows to Metro. Below is the discussion of all of the factors that were included in this analysis.

A significant amount of the sewer operation costs is for sewer service charges from the Metro which is budgeted at \$820,700 for FY 2018. Additionally, the District is budgeted to pay the County \$190,000 for its share of the operation and maintenance cost of the Rancho San Diego Outfall and the Spring Valley Outfall, to transport sewage to Metro for FY 2018.

Also, the District has an agreement with the City of San Diego to purchase up to six million gallons a day of recycled water from their South Bay Water Reclamation Plant (SBWRP). In 2007, the District began taking water from SBWRP under a contract that has a take-or-pay provision, whereby the District must pay for a minimum amount of water whether the District uses it or not. The term of the agreement was for twenty (20) years commencing January 1, 2007.

Both the RWCWRF plant and the SBWRP plant supply the District's recycled distribution system. The District operates the largest recycled water distribution system in San Diego County and will supply approximately 3,660 acre-feet (1,000 from RWCWRF plant and 2,660 from the SBWRP plant) of recycled water to 719 customers in Fiscal Year 2018. Additionally, the District has budgeted to pay the City of San Diego for 2,234 acre-feet of recycled water that the District cannot use because of the take-or-pay provision of the contract.

Staff performed an analysis of sewer and recycled water cost last year based on Fiscal Year 2016 actual cost, to determine the cost benefit of whether the District should keep RWCWRF plant open (status quo) or to shut down the plant and send 100% of the flow through the County to Metro for treatment. Based on this analysis, the cost of water produced at the District's RWCWRF is \$982.47 per acre-foot. The cost to purchase recycled water from the SBWRP at the current rate is \$756 per acre-foot, but when the meter fee and the take-or-pay contractual amount is included, the effective rate is \$1,396.87 per acre-foot.

**ANALYSIS:**

The costs are divided between the sewer customer group and the recycled customer group based on cost of service to these customers. Sewer costs consists of collection, primary treatment, and secondary treatment. Other District costs include salary and benefits, materials and maintenance, power, annual depreciation, Metro costs, and the County transportation costs.



Recycled water costs consist of tertiary treatment, water purchase cost, salary and benefits, materials and maintenance, power, and annual depreciation. In addition, there is the recycled water purchase cost which is considered a fixed cost in all scenarios because of the take-or-pay contract with the City of San Diego. Occasionally, there is also the cost of supplementing with potable water.

<b>RWCWRF Remains Open (Status Quo)</b>						
Sewer Costs				Recycled Water Cost		
District	Metro <sup>(1)</sup>	County	Total	District	Water <sup>(2)</sup>	Total
\$891,038	\$432,536	\$197,786	\$1,521,361	\$991,312	\$3,747,362	\$4,738,674

<b>RWCWRF Closure (send 100% flows to Metro)</b>						
Sewer Costs				Recycled Water Cost		
District	Metro <sup>(1)</sup>	County	Total	District	Water <sup>(2)</sup>	Total
\$585,835	\$1,180,024	\$347,786	\$2,113,645	\$908,147	\$3,808,686	\$4,716,833

<b>Cost Differential between Status Quo and Closure</b>						
Sewer Costs				Recycled Water Cost		
District	Metro	County	Total	District	Water	Total
(\$305,203)	\$747,488	\$150,000	\$592,284	(\$83,166)	\$61,324	(\$21,842)

(1) In the "Status Quo" scenario, it is assumed there is a \$380,000 true-up due to the District, based on the City's estimated true-up for Fiscal Year 2016. This true-up varies due to the District's actual flow being less than estimated or because the strength of sewer is different than budgeted. In the "Close RWCWRF" scenario, there is no true-up as wastewater would be raw (as opposed to being a by-product of treatment) and the assumption that 100% of the flow would go to Metro, which is easier to estimate.

(2) There is a minor difference in the amount of potable water supplement needed between the "Remains Open" scenario and the "Close" scenario because without the District's recycled water, it is assumed that more potable water is needed to supplement the recycled, especially in the summer months when the SBWRP cannot keep up with high demands.

This analysis shows that for sewer customers it is far more cost effective to treat sewage at the RWCWRF as the savings is \$592,284. For recycled customers it is almost cost neutral due to the fixed nature of the contract to purchase water from the City of San Diego.

It should be noted that this is a snapshot of the current status and does not consider future events.

**FUTURE ANALYSIS:**

The 2018-2022 Strategic Plan will consider various aspects of the future of sewer and recycled water on a short-term and long-term basis. The analysis presented in this staff report is short-term and does not consider future events, such as what the cost of the City's Pure Water will do to the Metro costs or how Metro may propose changes to their rate structure.

Some options that will be considered in the strategic plan are to perform an analysis to have the RWCWRF plant only treat sewage on a seasonal basis, or have the County of San Diego take over the collection system and lease out the plant. Additionally, the strategic plan will look at the future of recycled water such as receiving supply from the International Boundary and Water Commission (IBWC) should the City not renew the contract for recycled water at SBWRP.

**FISCAL IMPACT:**             Joe Beachem, Chief Financial Officer

None.

**STRATEGIC GOAL:**

This analysis supports the District's Mission Statement, "To provide high value water and wastewater services to the customers of the Otay Water District, in a professional, effective and efficient manner" along with the General Manager's Vision, "A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

**LEGAL IMPACT:**

None.

Attachments:

- A) Committee Action
- B) Presentation



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b>	Cost Benefit of the Treatment Plant Shutdown vs. Status Quo
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### **COMMITTEE ACTION:**

This is an informational item only.

### **NOTE:**

The "Committee Action" is written in anticipation of the Committee moving the item forward for board approval. This report will be sent to the Board as a committee approved item, or modified to reflect any discussion or changes as directed from the committee prior to presentation to the full board.

# Cost Benefit of Treatment Plant Shutdown vs. Status Quo

April 4, 2018

# Purpose

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To present to the Board the cost benefit analysis

Status Quo - Keep Ralph W. Chapman Water Recycling Facility (RWCWRF) Treatment Plant open and operating as is.

Or

Close RWCWRF - Send 100% of sewer flows to San Diego Metropolitan Wastewater (Metro).

# Background

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- The District provides sewer service to 15,200 customers through 4,700 accounts within the Jamacha Sewer Basin.
- The District operates the RWCWRF plant, which treats wastewater for the purpose of producing recycled water.
- The District pays the County of San Diego to transport wastewater and pays Metro to transport and treat wastewater (both by-product of recycling and raw wastewater that is not treated).

## Background (cont.)

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- The District has an agreement with City of San Diego to buy recycled water from the South Bay Water Reclamation Plant (SBWRP).
- The agreement has a take-or-pay provision and is for 20 years commencing in January 2007.
- Both the RWCWRF (1,000 AF) and the SBWRP (2,660 AF) supply recycled water to the District's distribution system with 719 customers.
- The budgeted take-or-pay is 2,234 AF for FY2018.

## Sewer Cost

- Collection, primary treatment, and secondary treatment costs
- Internal costs include: salaries and benefits, materials and maintenance, power, and annual depreciation
- External costs include: Metro and County of San Diego



### Recycled Cost

- Tertiary treatment cost and water purchases
- Internal costs include: salaries and benefits, materials and maintenance, power, and annual depreciation
- External costs include: recycled purchases (for water used and the take-or-pay volume) and portable water purchases (when the recycled water system needs a potable supplement)

# Cost - Status Quo

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Status Quo (RWCWRF remains open)						
Sewer Costs				Recycled Water Cost		
District	Metro	County	Total	District	Water	Total
\$891,038	\$432,536	\$197,786	\$1,521,361	\$991,312	\$3,747,362	\$4,738,674

# Cost - Shutdown

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<b>Shutdown RWCWRF (send 100% flows to Metro)</b>						
<b>Sewer Costs</b>				<b>Recycled Water Cost</b>		
<b>District</b>	<b>Metro</b>	<b>County</b>	<b>Total</b>	<b>District</b>	<b>Water</b>	<b>Total</b>
\$585,835	\$1,180,024	\$347,786	\$2,113,645	\$908,147	\$3,808,686	\$4,716,833

# Cost - Differential

Cost Differential between Status Quo and Shutdown						
Sewer Costs				Recycled Water Cost		
District	Metro	County	Total	District	Water	Total
(\$305,203)	\$747,488	\$150,000	\$592,284	(\$83,166)	\$61,324	(\$21,841)

The cost to produce recycled water from the RWCWRF is \$982.47 per AF.

The all-in cost to purchase recycled water from the City's SBWRP is \$1,396.87 per AF based on the FY 2018 take-or-pay contract.

# Future Analysis

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This analysis is a snapshot in time and does not include future events such as:

- The City of San Diego's Pure Water Program future cost allocation.
- Metro changing it's cost sharing allocation using a fixed component such as system capacity to charge customers.

## Future Analysis (cont.)

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The 2018-2022 Strategic Plan will consider some of the following options which are not part of this current analysis:

- Run the RWCWRF on a seasonal basis.
- Sell the sewer assets to the County of San Diego and contract out the running of the RWCWRF.
- The District purchasing recycled water from the International Boundary and Water Commission should the City not renew the contract.

Questions?

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# AGENDA ITEM 6



## STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	April 4, 2018
		PROJECT:	DIV. NO. All
SUBMITTED BY:	Andrea Carey, Customer Service Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Joseph R. Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Automated Meter Reading Change Out Capital Improvement Program Update		

**GENERAL MANAGER'S RECOMMENDATION:**

This is an informational item only.

**COMMITTEE ACTION:**

See Attachment A.

**PURPOSE:**

To update the Board on changes to the Automated Meter Reading (AMR) change out Capital Improvement Program (CIP) approved by the Board in 2017.

**ANALYSIS:**

**Background**

Beginning in late 2016, there was a noticeable increase in transponder failures of the AMR registers purchased in 2006. These registers had reached an 11-year life and were no longer covered by Master Meter's 100% replacement warranty. A seven-year Capital Improvement Project was created to replace the aging registers with brand new Master Meter AMR registers at the 11-year mark.

While tracking AMR failures by year, staff noticed an unusually high increase in failures of 2009 transponders beginning in early 2017. Staff reached out to Master Meter, who began investigating the reason for these premature failures. By mid-2017, 2010 transponders were also seeing a large increase in failures. Still unable to determine



the reason for failure but understanding the inconvenience these unexpected failures cause Otay, Master Meter began sending their staff out to assist with warranty register replacements in June 2017. Master Meter has continued to send one staff member out for at least one week per month to replace registers currently under warranty.

In February 2018, Master Meter identified the root cause of the failures. They found that a manufacturing change in 2009 resulted in a faulty electrical board component. This causes the transponder to transmit data more frequently than it should, thus causing premature battery failure. Registers manufactured between 2009 and early 2013 were identified as having this defect and will require replacement in the next two years. As of January 2018, there were approximately 17,000 of these registers installed throughout the District.

### **CIP Program Changes**

Due to this new development, staff evaluated the existing AMR change out plan. The original plan to change out registers at the 11-year mark was no longer feasible as most of the remaining 3G registers will not last to the 11-year mark. Master Meter presented Otay with three options to replace these registers:

- 1) A new 3G register at no cost, with only the remaining warranty.
- 2) A new 3G register at a cost of \$35.46 with a new 20-year warranty (10-year at 100% and 10-year prorated)
- 3) A new Allegro register at a cost of \$103.45, a reduction of \$34.48 from the current reduced District price.

In order to determine the best option, staff had to look at the overall program. First, staff revised the timeline of the current change outs, reducing the time to change out all old registers from 7 years to only 4 years, a necessity due to the failing registers. Second, meters have a useful life of approximately 20 years. Staff needed to consider the shorter life of the failing registers and how that would impact the timing of the next round of change outs, which would include both meters and registers.

This next round of change outs would begin in FY 2025 and end in FY 2032. To minimize material costs, staff looked at maximizing the useful life of both the meters and registers. Staff also considered the costs that are created by overextending the useful life of the meters and registers, which can include underperforming meters and manually reading failing registers. In evaluating all these factors, staff determined that meters purchased between 2005 and 2009 (with registers changed out between 2017 and 2019) will only have had a register for 6 to 10 years, at the point when the meters will need to be changed out. These meters would be best matched with registers that have a shorter useful life. However, meters purchased between 2010 and 2012 (with registers changed out between 2018 and 2020) will have had a register for 10 to 14 years, at the point when the meters will need to be changed out. These meters are better matched with registers with a longer useful life.

Based on Master Meter's assurance that all new 3G registers manufactured after 2013 should operate just as those prior to 2009, staff estimates the life expectancy of the replacement 3G units at 11 years. Additionally, based on laboratory tests, Master Meter estimates the life expectancy of the Allegro registers to be 15.4 years.

Given the life expectancy of each style of register and the requirements for length of use going forward, staff determined the best course of action was to change routes with meters purchased in 2009 or earlier with the no-cost 3G registers and routes with meters purchased in 2010 or later with Allegro registers. When the current replacements conclude in FY 2020, the District will have approximately 19,000 3G registers and 30,000 Allegro registers installed. By maximizing the warranty on the faulty registers, the overall AMR change out CIP budget has been reduced by \$3.3 million.

**Future Assurances**

In light of this manufacturing defect, Master Meter is currently having a third party engineering consultant test the various Allegro versions that have been manufactured to date to ensure those registers are performing as expected.

Finance staff is currently working with Master Meter to evaluate their financial strength given this major warranty liability and will have an update next month.

**FISCAL IMPACT:**             Joe Beachem, Chief Financial Officer

The AMR change out CIP budget has been reduced by \$3.3 million.

**STRATEGIC GOAL:**

Improve and streamline meter related processes.

**LEGAL IMPACT:**

None.

Attachments:

Attachment A - Committee Action



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b>	Automated Meter Reading Change Out Capital Improvement Program Update
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### **COMMITTEE ACTION:**

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### **NOTE:**

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